

NATURAL SCIENCE RESEARCH CURATOR I

This is research curatorial work in the development and maintenance of a natural science systematic collection of native and representative biological species of North Carolina.

Employee participates in natural science research as directed by a senior curator, or independently conducts original research projects in a specialty area such as mammology, ornithology, lower vertebrates, or invertebrates. Work requires not only project, design, methodology development and modification, and field collection of data, but also interpretation and ultimately publication of findings in scientific journals. Curatorial duties include the collection, accession, taxonomic identification, preservation of specimens, and the maintenance of data files. Employee provides expertise in the area of respective specialty to other sections of the museum, private industry, other State agencies, and to the general public; presents informational and educational lectures on natural science or museum topics; and writes scientific as well as popular articles. Work is performed with considerable independence under the general guidance of a senior curator.

I. DIFFICULTY OF WORK:

Variety and Scope - Work assignments are interrelated and vary from the curation of a research collection to the preparation of scientific papers and interpretive articles based on results of independent research endeavors. The scope of the work is limited to a specific area of expertise, for example birds, mammals, invertebrates, or lower vertebrates.

Intricacy - Judgment must be exercised in determining methods to be utilized in the preservation of specimens as techniques used may vary from species to species, and between life stages in the development of single species. Work requires the initiation, planning, and execution of independent research on topics in the prescribed specialty area of expertise. Accuracy is required in the recording of data, notation of special characteristics of organisms, taxonomic classification, and in the reporting of factual data. Considerable analysis is required in the interpretation and compilation of raw data into scientific research papers.

Subject Matter Complexity - Employee must have a good understanding of vertebrate, invertebrate zoology, or other natural science area depending on area of expertise, as well as scientific research methods and preservation techniques.

Guidelines - Curatorial procedures and research methodology followed are those generally accepted by major museums and/or researchers in the natural science field. Other guides include various manuals and scientific texts, taxonomic guidelines, accepted formats for the preparation of scientific publications, State and federal regulations pertaining to the acquisition of certain species, and the program objectives of the research and collections division of a natural science museum.

II. RESPONSIBILITY:

Nature of Instructions - When assisting a senior curator on a research project, employees are given specific instructions on project objectives as well as methodology to be employed. Generally, work is self-planned and performed with considerable independence, with occasional verbal instructions from the supervisor, as needed. Technical problems encountered in independent research projects or in curatorial work are usually resolved by the employees, but may be discussed with senior curator.

Nature of Review - Research project proposals are initially reviewed by senior curators for technical as well as administrative, feasibility. Work is reviewed in progress and upon completion for compliance with accepted scientific research standards. Completed publications are reviewed for proper literary style and format; substantive review of completed scientific and interpretive articles is minimal. Curatorial work is reviewed for adherence to well-established practice for the development and maintenance of a systematic collection.

Scope of Decisions - Decisions made in research endeavors or in collection curation affect primarily the research and collections division of the museum, but, may also affect members of the scientific community involved. In similar fields of study by the dissemination of incorrect information.

Consequence of Decisions - Errors in judgment could result in wasted time and materials, and loss of specimens. The recording or dissemination of incorrect information could result in loss of credibility of the museum and research staff in the scientific community.

III. INTERPERSONAL COMMUNICATIONS:

Scope of Contacts - Daily contact with museum staff; frequent contact with scientific community, representatives from governmental agencies and from private industry, museum patrons, and the general public.

Nature and Purpose - Contacts are made in order to present and interpret findings; to gather and/or exchange information and facts relating to specific area of expertise; and to explain collection, research, or curatorial techniques.

IV. OTHER WORK DEMANDS:

Work Conditions - Employees work in a laboratory setting with exposure to fumes, chemicals, and biological substances and animals. Fieldwork may expose employees to adverse environmental settings and inclement weather.

Hazards - Employees may be exposed to dangerous animals.

V. RECRUITMENT STANDARDS:

Knowledges, Skills, and Abilities - Considerable knowledge of vertebrate or invertebrate zoology, depending on area of specialization. Considerable knowledge of requirements for scientific research and publications- Considerable knowledge of the principles and practices of scientific research. Knowledge of taxonomic principles. Knowledge of materials and equipment used in scientific research. Considerable knowledge of the characteristics, behavior and habitats of organisms in area of expertise. General knowledge of the natural history of North Carolina. Ability to solve advanced and complex problems of taxonomic identification. Ability to handle and care for live animals. Ability to plan, design, and conduct original research in areas of natural science, and to compile and record results in accepted scientific formats. Ability to converse and present lectures on topics in areas of expertise to professionals and laymen.

Minimum Education and Experience - Graduation from a four-year college or university with a degree in biology, zoology, or a science curriculum related to the area of expertise and two years of experience in specialty area: a master's degree in natural science area may be substituted for experience; or an equivalent combination of education and experience.

Minimum Education and Experience for a Trainee Appointment - Graduation from a four-year college or university with a major in biology, zoology, botany, or other natural science curriculum related to the area of assignment.